Economy in Cooking.

Much gas may be saved with a little care. I bought a number of pans of various sizes, but all with tightly fitting covers. Whenever I bake bread or a roast or for any other reason have a hot oven, I plan to cook other things also, as many as the oven will hold. Stewed fruits and all vegetables will cook as well in an oven as on top of the stove if started boiling in plenty of water and then put in the oven in the covered vessels. Potatoes, however, are spoiled by this process.—Exchange.

Not the Other Extremity.

From Canon Beeching comes the following story: "It was the morning after the banquet, and a solicitous friend who had set beside Bishop Stubbs, happening to meet him, asked if he got home all right. The bishop looked slightly surprised at the question, but at once added, with an apparent gleam of comprehension, 'Oh, yes, it was only my boots that were tight.'"

Windows in Umbrella.

An umbrella with windows is the latest in Paris. The reason given for the innovation is the difficulty of getting about on account of the danger caused by traffic, especially in wet weather.

The Only Way.

Hewitt—"I want him to stand back of what he says." Jewett—"Then you'd better get him to say it by telephone."

Queer Place for Wedding Ring.

A merchant at Aberdeen, N. S. W., while cutting a cheese the other day found that his knife was stopped by something hard. On investigating he saw that its progress was barred by a heavy gold wedding ring.

The Two Classes.

The man who is looking for trouble is a source of endless wonderment to the men who can't get away from it.

Interesting Relic of Old Days.

The remains of the old Roman boat found embedded in Thames mud during the sinking of the foundations of the London county hall, at Westminster bridge, were transferred to the London museum. A coin which was found in the boat points to its date being probably about 293-296 A. D. Researches have led to the opinion that the old boat is probably a relic of the first fleet formed to protect the shores of Britain.

Too Bad That She's Gone.

Somebody who has taken the trouble to investigate has found that Elizabeth Barrett Browning tried to make "eagle" rhyme with "vigil," "heiress" with "terrace," "nature" with "satire," and "woman with "gloaming." It is a pity that Mrs. Browning is dead. She might, if she could return, make a wonderful success as a writer of lyrics for musical comedies. Undoubtedly she possessed the chief qualification.

Remembered the Lesson.

My little girl, who was about three years old, had always had it impressed upon her that after she was once dressed she should not get dirty again. One afternoon after being dressed she went out to play and fell down in the dirt. She then came running to me and cried, "O, mamma now I'm all undressed."—Exchange.

No Wedding Presents.

Those who are opposed to the giving of wedding presents will hail with approval the step taken by a very wealthy Chicago society girl. When her wedding invitations were issued they contained this sentence: "It is a special request that no gifts shall be sent." Probably there are others who will follow her example.

Wouldn't a Lamp Post Do?

A newspaper correspondent urges the need of an individual banister. Wonder if the man expects us to tote 'em around in our pockets?—Columbia State.

Not for Her.

The verger of a large church, seeing an old woman in one of the seats reserved for some important persons, beckoned her to come out. But just at that moment the organ started playing. The old woman, never having been in a church containing an organ, startled him and the congregation by calling: "Ha, man, get somebody younger; my dancing days are past."

EXCELLENT STUDY FOR FARM BOYS DURING WINTER MONTHS

Plant Growth in Its Various Stages Described Especially for the Benefit of Our Youths Who Wish to Make It Object Lesson During Severe Cold Months—Needful Things.

(By MRS. L. GRIMES.)

From fall till spring seems like a long time to a boy, especially if he has a choice lot of seeds that he is anxious to put into the ground. But there is a great deal to be done during the time of waiting.

The boy who does not mean to waste his time and labor must learn something about what his plants will need before he is even ready to prepare his ground.

The first thing needful is to understand something about the make-up of the seed itself. As seeds are quite

Seeds need air for germination. The beans in both bottles were soaked 24 hours and then were put in dry bottles. Bottle A contained sufficient air to start the few seeds. Bottle B had not enough. The water in the tumbler C did not contain sufficient air for germination.

similar in general characteristics, studying one closely will give a fair understanding of others.

The common white bean is easy to get, and to study, so we will take in as an example.

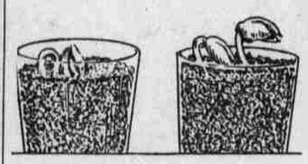
Soak a few beans in water overnight. Then take one and cut the tough outer covering around the edge with the point of a pin. The halves can then be easily spread apart, and the tiny plant discovered. It lies snugly cradled in one end of the bean. You will see that it has two parts, a small waxen point, and a tiny, yellowish, folded leaf. The point is the root, and a tender, delicate thing it is.

This little root must work its way down into the ground, both to feed and to hold in place the little plant. If the ground is not well prepared, if it is too hard and cloddy, the little root may become so broken and bruised as to hinder, or perhaps entirely check, its growth.

The tiny leaf, too, which must push upward, needs a soil that is soft and loose, if it is not to be injured.

Plant a few seeds in a bed of wet sawdust, and you will soon see, branching out from the main root, many little rootlets. A little later, a set of fine hairs, called root-hairs, will appear on the rootlets.

It is through these that the plant gets its nourishment from the soil.



How the Bean Plant Gets Up.

They take up all the elements that the plant needs, and send them up through little veins to the stems and leaves, as your food is taken through your body by the veins, in the shape of blood.

The plant's blood is called sap. The tiny mouths can only use the food in the soil when it is "in solution," that is to say, when it is thoroughly dissolved. You can see that it will need considerable moisture to do this.

If the ground is too light and loose, the water will all drain and dry away, and no matter how rich the soil may be, the plant will die for want of food.

So an important thing to keep in mind, when preparing the seed-bed, is that the top soil, to the depth of several inches, should be worked up lightly and loosely enough so that the root can readily push through, and still be pressed firmly enough so that the moisture can not all escape.

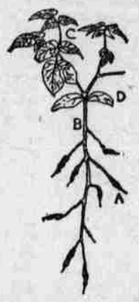
All over the stem and leaves are little openings, called "pores." It takes a microscope of quite high power to detect them. These are the plant's lungs. Through them it gets the air it needs to live on.

If you cover a plant so tightly that it cannot get air, it will smother just as surely as you would with a blanket over your head. That is what will happen if you get your seeds in too deep, or if you let the ground get hard above them before they come up.

If you wish to be sure just how deep to plant your seeds, try this little experiment.

Take a tall glass tumbler, or a pint fruit-jar, and fill it with earth. Press down into it, next the glass, three seeds of any kind you wish to test.

Press the first clear to the bottom, the second about half way to the bot-



Showing Root Hairs On a Young Plant. A, Root Hair; B, Hypocotyl, Between Seed-Leaves and Root; C, True Leaves; D, Seed-Leaves or Cotyledons.

tom, and the third leave within an inch of the top. Do not put them directly over one another. Wrap a heavy paper around the glass to keep out the light, and keep the earth in it moist and warm.

Every day slip off the paper, and note how the seeds are doing. Whichever one thrives the best is the one you want to take as your guide in the matter of depth. What do you think will happen to the one at the bottom?

You have noticed that there is a great part of the seed that is not filled up by the baby plant. This part is filled with food upon which the plant lives until it gets roots long enough to feed itself.

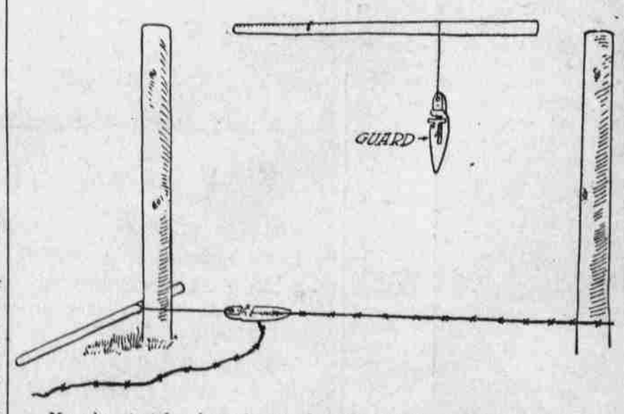
After the food in the seed is all used up, there must be other food in the soil ready for it to live on. This is the critical time in a young plant's life. If it is starved and stunted now, it will never make up for it.

Remember, then, that good seed, a well prepared seed-bed, and plenty of food in the right shape for the young plant to use, are the first things to look after, if you wish to make a good profit on your season's work.

Best Breeding.

Breed for the best only. Under no circumstances should a breeder of good fowls place a bird with any serious defects in a breeding pen.

WIRE STRETCHER IS POWERFUL



My wire stretcher is made out of an old mowing machine guard, writes Willie Ballard, rural route 5, Weston, W. Va., in an exchange. Get a pole about four and a half or five feet long, fasten the wire, which should be about two and a half feet long, to the guard, and then about two feet from the end of pole, and you have a stretcher that is a dandy for stretching barbed wire.

HANDLE MANURE DIRECT IS BEST

Prof. Gilmore of New York Station Finds Much Loss Where Allowed to Be Exposed to Weather.

On the subject of hauling manure, Professor Gilmore of the New York experiment station, says:

"We think, all things considered, it is better to haul manure directly from the stable to the fields than it is to pile it up for any length of time.

"If well-rotted manure is desired for trucking purposes or for top dressing for hay lands, then it must be stored, but under ordinary conditions for this purpose losses from 25 to 45 per cent. in the fertilizing value of manure occur, and if it is not kept reasonably wet and stirred from time to time, excessive fermentation results, to say nothing of dry burning and leaching. Losses amounting to 37 to 57 per cent. have been recorded when manure has been exposed to weather.

This loss refers mainly to the fertilizing material in the manure. It is still available as humus or organic matter when applied to the soil."

Shows In Full Blast.

The winter poultry shows are on in full force. Every old line judge has a full quota of engagements, and plenty of places are left for the young judges, who, on making good, will some day take the places of men like Drevenstadt, Atherton, Brown, Denny and a host of others. There is plenty of room at the top for men who have qualified as judges in one or more classes. Men of ability will always be sought and be worthy of hire.

Indiana Owns a Few Horses.

There are 1,176,250 horses owned in the state of Indiana. This includes both horses and mules. The value placed on the whole is $143,874,500. This is the greatest record ever furnished by the Hoosier state, the average being $123 per head.

SAVING THE SUNSHINE.

Most true conservationists will agree with the secretary of the interior in his condemnation of those loud talkers who spend their energies in discussing the wickedness of waste, without at the same time being willing to assist in any practicable plan to stop the evils they so greatly deplore. We suspect, however, that few, even of those good citizens who believe in the wisest use of natural resources and who are sincerely eager to safeguard the public good both now and hereafter, realize how easy it is to neglect opportunities for conservation which lie about door. The coal and forests in Alaska are of vast importance, but the discharge of our duty with regard to them will not occupy much of our time. A nearer need is to see that we make the best use of natural resources in our own back yards. How about making "two blades of grass grow where one grew before?" Why isn't that just as important as keeping the coal or saving the streams or doing any of the thousand and one things that we individually can only talk about? Our truest conservationists are those gardeners and farmers who catch the sunshine and husband the rain and strive intelligently to keep pace in production with the increase of the non-agricultural population.

The need of conservation of food-supplying resources is obvious. There are more people in America every year, and every year the soil, if unreplenished, is impoverished. The area of rich land decreases and the cost of living rises. Conservation of the potential power of sun and soil is the only reasonable solution of the problem of nation-feeding and just here is our opportunity. What is for the nation's good is also for our individual profit. The wise use of the soil means money in our pockets.

The very greatest product of land is derived from "intensive gardening." Through generations of intelligent selection and breeding thoroughbred seeds have been developed whose yield far surpasses in quality and quantity that of the ordinary strains. You can be a true conservationist if you have a successful garden. Be sure, however, to start right by planting thoroughbred seeds. These can be bought of seedsmen having sufficient capital and experience to know what they are about and a reputation to maintain.

Finesse.

"How did you get old Bunkins' consent to marry his daughter?" "Finesse, my boy—just finesse. I told all over town that he had caught seventeen four-pound bass on that last fishing trip he took."

Lightning's Freak.

A strange freak of lightning is reported from France. During a recent thunderstorm the lightning struck three byres in a village in the department of the Loire, killing off the cows in each byre that were lying down—16 in all—while all those standing up escaped unhurt.

Tolstoy's Wise Counsel.

Never say, "I can indulge in this little thing without fear; it does not amount to anything." Never say, "This particular virtue is so insignificant I might just as well do without it."—Tolstoy.

Whistler's Sarcasm.

James McNeil Whistler is said once to have confronted Oscar Wilde—at the height of the aesthetic movement—with Du Maurier, who was satirizing the Posiletwaites in Punch with all his might, and to have genially inquired: "Which of you two invented the other?"

Porcelain Not of Persia.

True porcelain was never produced in Persia, but hard paste porcelain in Persian forms and styles of decoration was made in China for the Persian market. Wine ewers with powder blue glaze and gold overglaze decoration, small vase, and bowls with bronze luster glaze and designs reserved in white are found in collections of Persian ware, but these are unquestionably of Chinese origin.

A Destructive Success.

"What has become of that man who said Mars is habitable?" "He made the mistake of convincing too many people. There wasn't enough skepticism to keep up a fairly interesting controversy."

Uncle Eben.

"De man dat expects to git sumpin' foh noffin'," said Uncle Eben, "generally makes a mighty risky investment of time an' trouble dat ought to be worth consid'rable."

Not All Succeed.

One hears a great deal of the country boys who make good in the great cities, but there are a number of others who go there and get less publicity.—Atchison Globe.